

## Phoenix Image-Guided OCT Optimized for Small Animal Imaging

### Designed for Small Animal Imaging

The Phoenix Image-Guided OCT is optimized for eye research using laboratory animals such as mice, rats and zebrafish. The remarkably small stacking design is integrated into the Micron IV retinal imaging microscope. There is no further footprint space required over that of the base platform technology; the Micron IV.

### See the whole picture, and more

Visualize the precise location of the OCT scan using the real-time Micron IV bright-field image. A superimposed line directly on the image placed over the retinal feature being examined delivers cohesive information about the sample.

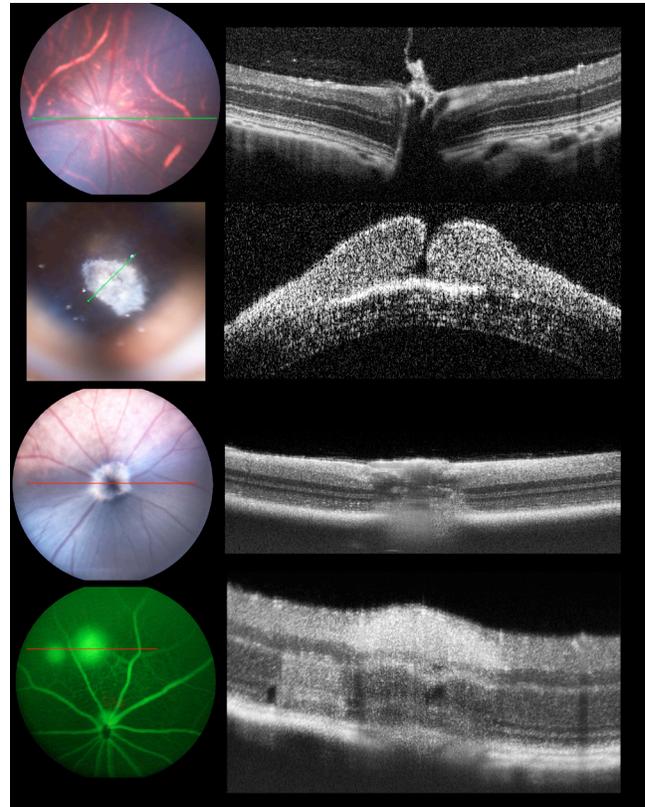
### Maximal clarity

Keep the cornea and lens clear easily using a coupling gel interface between the specially designed rat or mouse objective lens and the eye. Lens contact also minimizes translational movements made by respirations of the animal which can blur the image.

The Phoenix OCT provides state of the art resolution of below 2 microns longitudinally. This combined with the Micron IV retinal imaging microscope delivers high resolution in three dimensions.

### Fluorescein-guided OCT

Combining the OCT scan with fluorescein is possible with the simple turn of a filter. Emission patterns guide the beam placement to the exact retinal loci. Utilize an enhanced depth imaging technique to view the choroid and even the sclera in some animals. Perform circle scans to evaluate retinal nerve fiber thickness and 3D volume scans for enface views.



Phoenix Image-Guided OCT system (top to bottom): Brown Norway rat, corneal scar on mouse, zebrafish retina, laser burns on a mouse.

### Comprehensive imaging for comprehensive outcomes

With the high level of integration and ease of use, in a single setting quickly obtain bright-field images, an angiogram, and an OCT scan. This avoids separate sedations which some animals cannot tolerate without a calendar time delay.

### In vivo validation

Longitudinal research depending only on histology is a thing of the past. Complete a comprehensive in-vivo retinal study of OCT and bright-field images with corresponding angiograms in just minutes. Document the layers in histologic detail by OCT

and correlate the time points of imaging with a tissue sample at the end point of the study. Beyond convenience, documenting morphology over time using the Micron Image-Guided OCT is an essential tool for total understanding of retinal structure.



### Phoenix Image-Guided OCT fuels research

The Micron IV design delivers a unique proposition for image-guided eye research tailored specifically for laboratory animals. The Phoenix Micron IV platform supports a family of additional turnkey research instruments including Image-Guided

Laser, Slit Lamp Imaging, and Focal ERG. Unlike stand-alone adaptations of human instruments, the Phoenix range of products interface directly with the Micron IV to support image-guided comprehensive studies. With a broad range of applications including basic research, toxicology, pharmaceutical efficacy testing and neurological research, the Micron IV is sure to fuel scientific discoveries, which is at the heart of the Phoenix mission.



The small compact design of the Phoenix Image-Guided OCT engineered specifically for small animal research.

## PHOENIX IMAGE-GUIDED OCT

### SPECIFICATIONS

Methodology	Spectral Domain OCT
Image guidance	Bright-field live fundus image
Lightsources	Ultra broadband (160nm) SLD centered at 830 nm
Transverse resolution	2 $\mu$ m (mouse) 4 microns (rat)
Imaging depth	1.4 mm in tissue
Axial resolution	2 $\mu$ m in tissue
Imaging speed	10,000 - 20,000 A-scans per second
Pixels per A-scan	1024
Maximum output power	750 microwatts
File formats	JPEG, PNG, TIF, VTI, Raw
Scan Patterns	Line, Circle, 3D Volume
Measurement tools	Software Calipers
Animal models	Mouse, rat, zebrafish
Objective Lenses	Separate Phoenix Micron IV standard objective lenses for mouse and rat
	Separate Phoenix OCT objective lenses for mouse and rat
Integrated with the Phoenix Micron Retinal Imaging Microscope and associated hardware	